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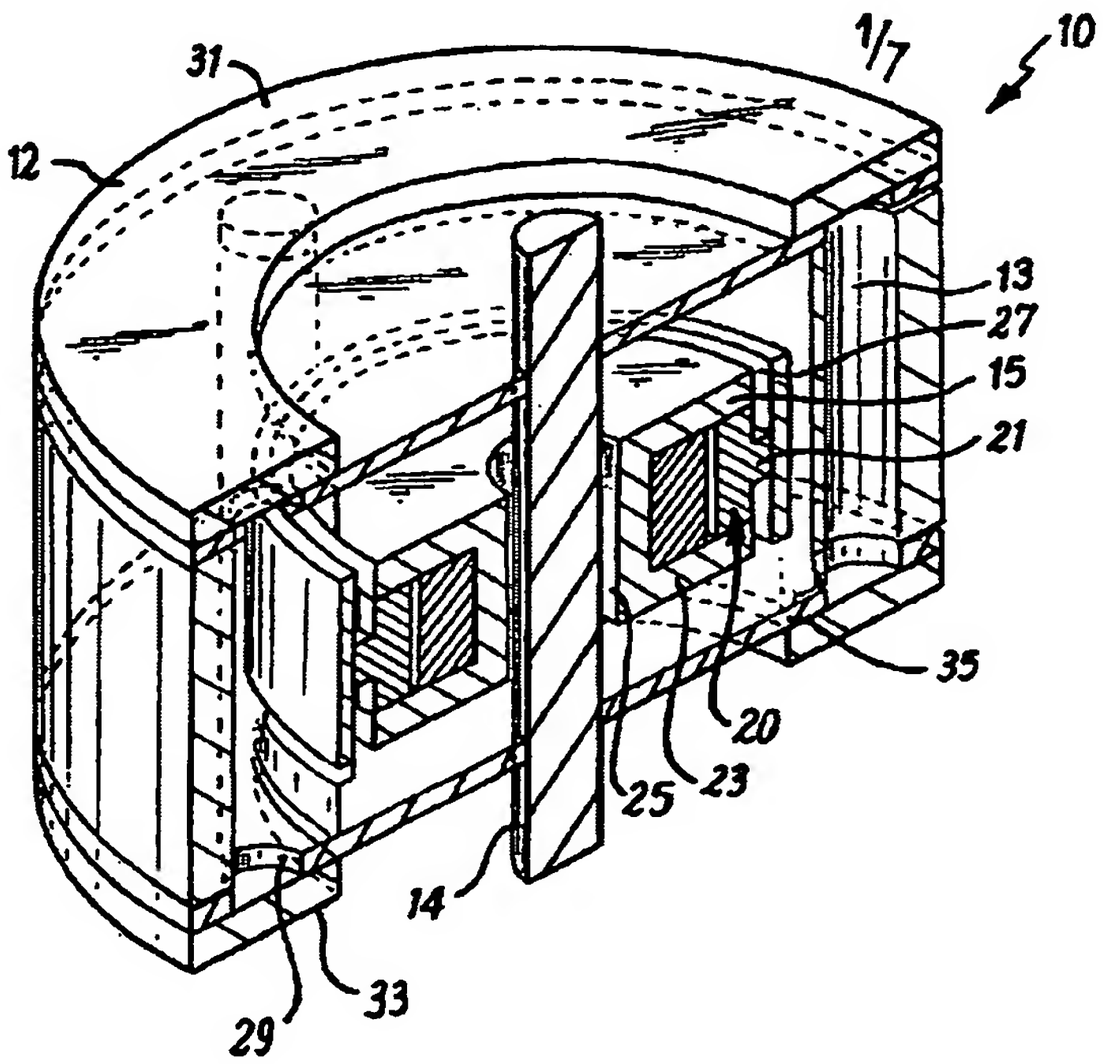
(54) Title: VIBRATION CONTROL SYSTEM



(57) Abstract: A variable damper with a low off-state, having an outer member (12) including a magnetic sleeve and an inner shaft (14), between which is supported an electromagnet (20). Magnetorheological fluid is inserted between the members and a flow path (25) is established over a control region between the electromagnet and the sleeve. Various embodiments of the damper are presented with the electromagnet supported on the outer member and on the shaft. A vibration control system incorporating a magnetorheological fluid variable damper is presented wherein the system provides a relative figure of merit for vibration control of at least 0.83. Devices incorporating the damper in a vibration control system are presented for snow boards, clubs, drills, engines, pumps, generators and vehicles.

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